Two-Photon Luminosity

The two-photon luminosity, $L_{\gamma\gamma}$, is calculated as the product of the equivalent (Weizsäcker-Williams) photon-fluxes, $n(\omega,b)$, from the two sources, integrated over impact parameter. For nuclei, nuclear impact parameters for which the nuclei overlap, $b<2R$, have to be excluded.

$$L_{\gamma\gamma} = \iint n(\omega_1,b_1)\, n(\omega_2,b_2)\, \Theta(|b_1-b_2|-2R)\, d^2b_1\, d^2b_2$$

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